

The Ecological Lands Handbook & Biological Inventories/ Ecological Assessments

presented by
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Acknowledgments

- Ecological Lands Handbook
 - Ingrid Lundin
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- Ecological Assessment Stakeholder Team
 - Tina Miller
 - Ingrid Lundin
 - Klaus Richter
 - Robert Fuerstenberg
 - Basin Stewards Representatives
 - Resource Coordinators Representatives

What are the Ecological Lands?

- DNRP properties managed to protect their “ecological value”
- Natural Resource Lands group (NRL) responsible for management
 - 73 sites
 - 5,200 acres in fee
 - 1,940 acres in easement
 - Executive Sims’s goal to acquire 1,000 acres/year

Ecological Lands Handbook

- Pam Bissonette asked NRL to write management plans for each Ecological Land
- Management plans are called Site Management Guidelines (SMGs)
- NRL requested assistance from the science group to develop guidance on the structure and content of SMGs

Ecological Lands Handbook cont.

- NRL and WEAT ecologists wrote the Ecological Lands Handbook
- Nine Conservation Principles from unpublished Aquatic Conservation Strategy were used to formulate the Handbook
- Handbook includes:
 - description of supporting Conservation Theory
 - Site planning considerations
 - Template for writing SMGs

Ecological Lands Handbook cont.

- Handbook was reviewed and approved by a larger DNRP stakeholder group including:
 - Parks and Recreation Division Maintenance, Resource Coordinators, and Interpretive groups
 - WLR Basin Stewards
 - Flood Hazard Reduction Services
 - Strategic Initiatives
- Handbook completed and approved by WLRD Management June 2003

“Know What You Are Managing”

- SMG recommendation for all lands: Biological Inventory/Ecological Assessment
- During 2004, ecologists conducted biological inventories of the following Ecological Lands:
 - Kanaskat Natural Area
 - Horsehead Bend Natural Area
 - Auburn Narrows Natural Area
 - Lower Taylor Reach Natural Areas
 - Log Cabin Reach Natural Area
 - Tolt River Natural Area
 - Griffin Creek Natural Area
 - Stillwater Natural Area

Field Methods

•Vegetative communities broken into four categories:

- Wetlands
- Stream/Riparian
- Forest
- Grassland/Meadow



Field Methods cont.

- For a given Natural Area, maps are generated prior to a field visit to help in planning survey approach.
- Each vegetative community and/or habitat patch is surveyed and data are collected on:
 - Soils
 - Vegetation structure and composition
 - Wildlife habitat features (snags, logs, etc.)
 - Rare or unique plant or animal species/communities

Field Methods cont.

- Dangerous yet rewarding...



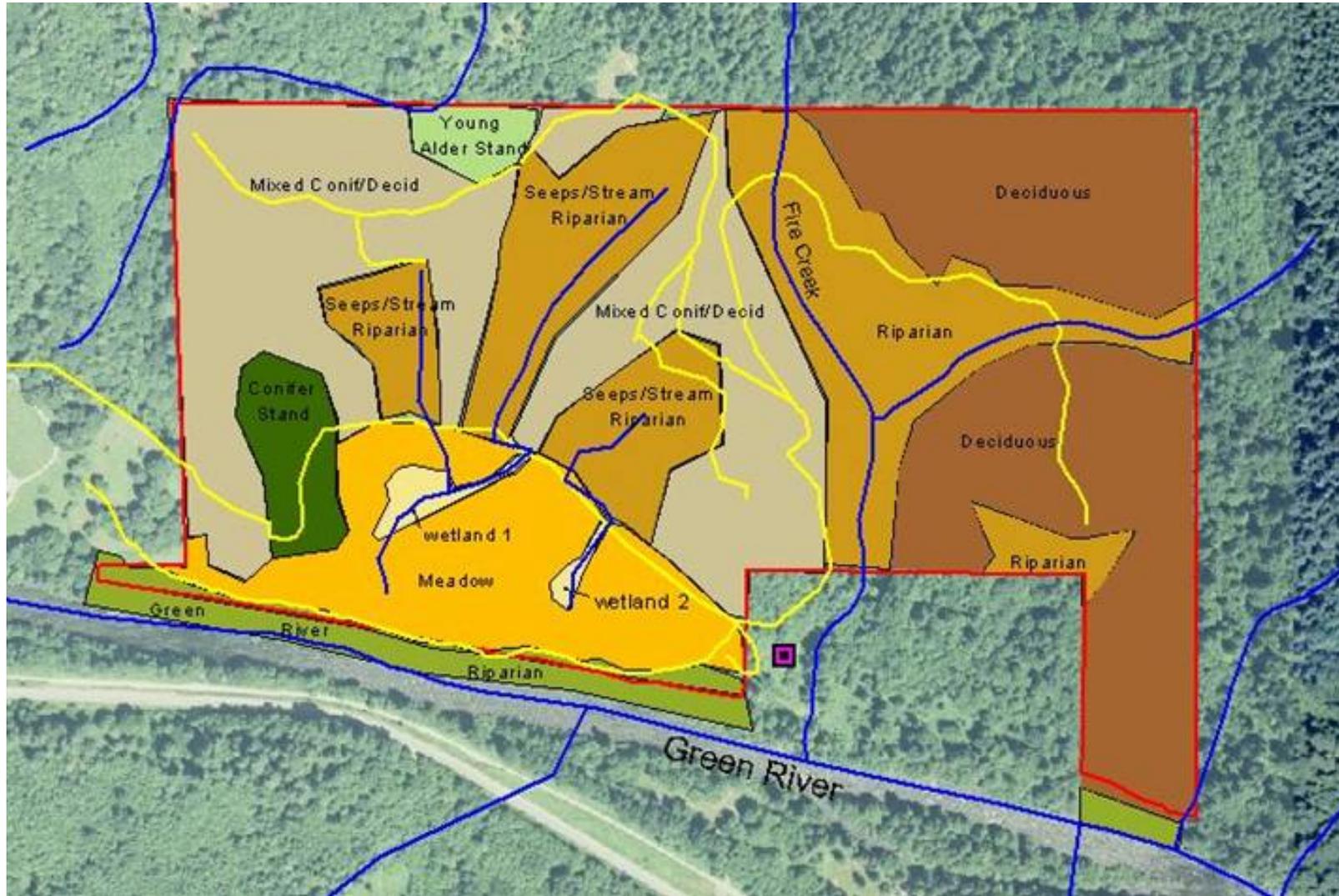
Analysis Methods

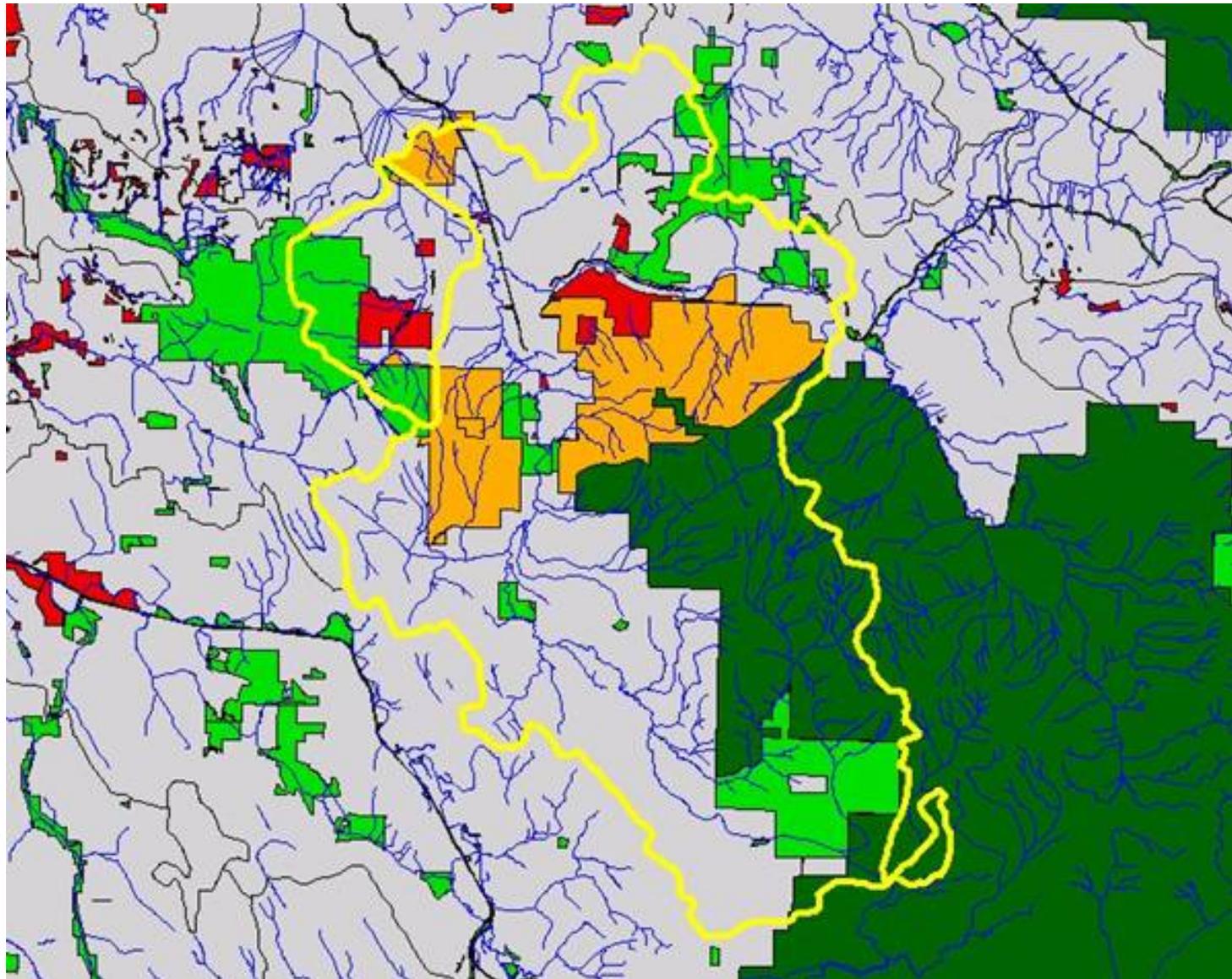
- Use GIS (ArcView) to map:
 - data collection points
 - aquatic and terrestrial habitat patches
 - local and regional landcover
 - roads
 - soils
 - slope/topography

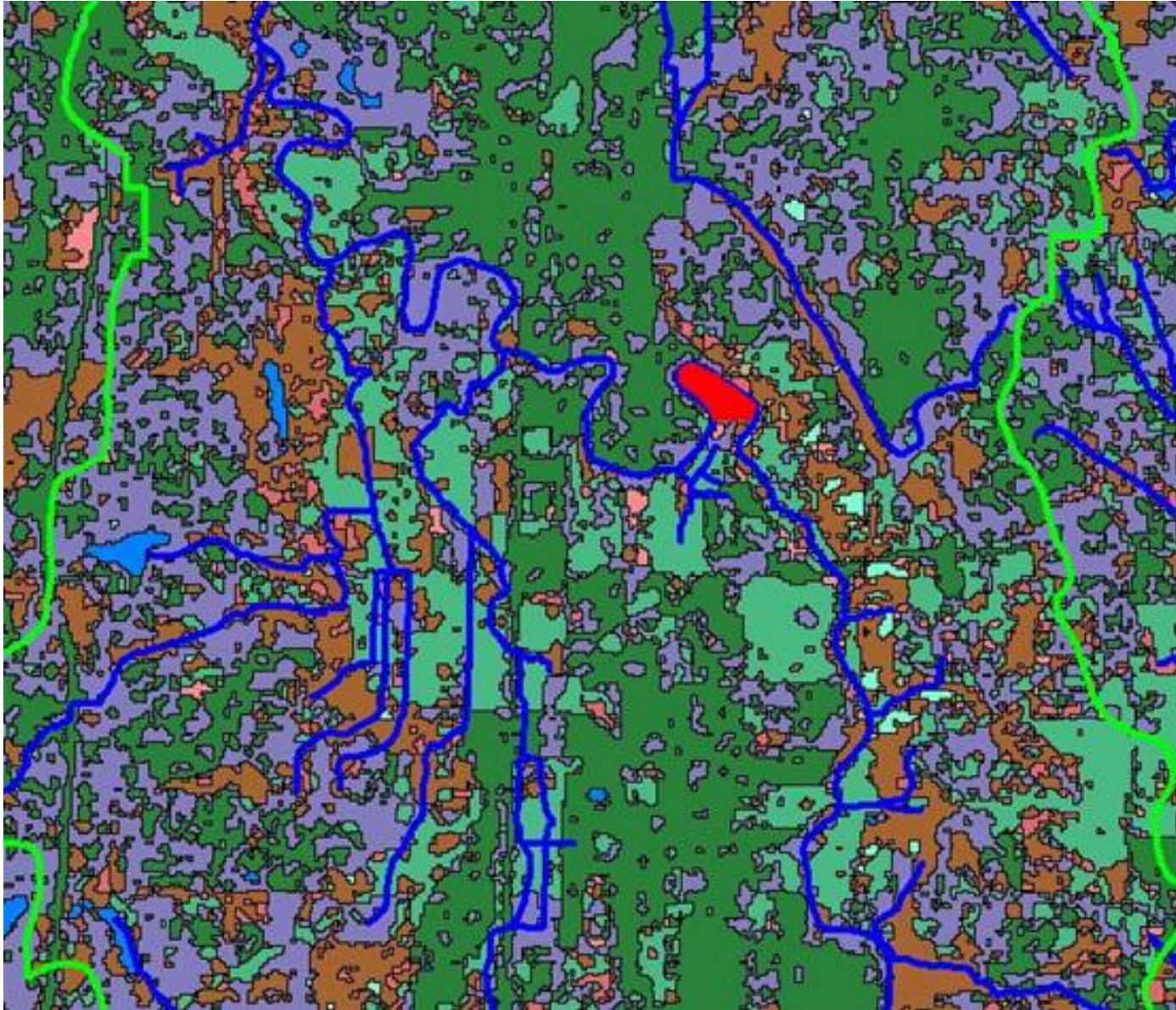
Analysis Methods cont.

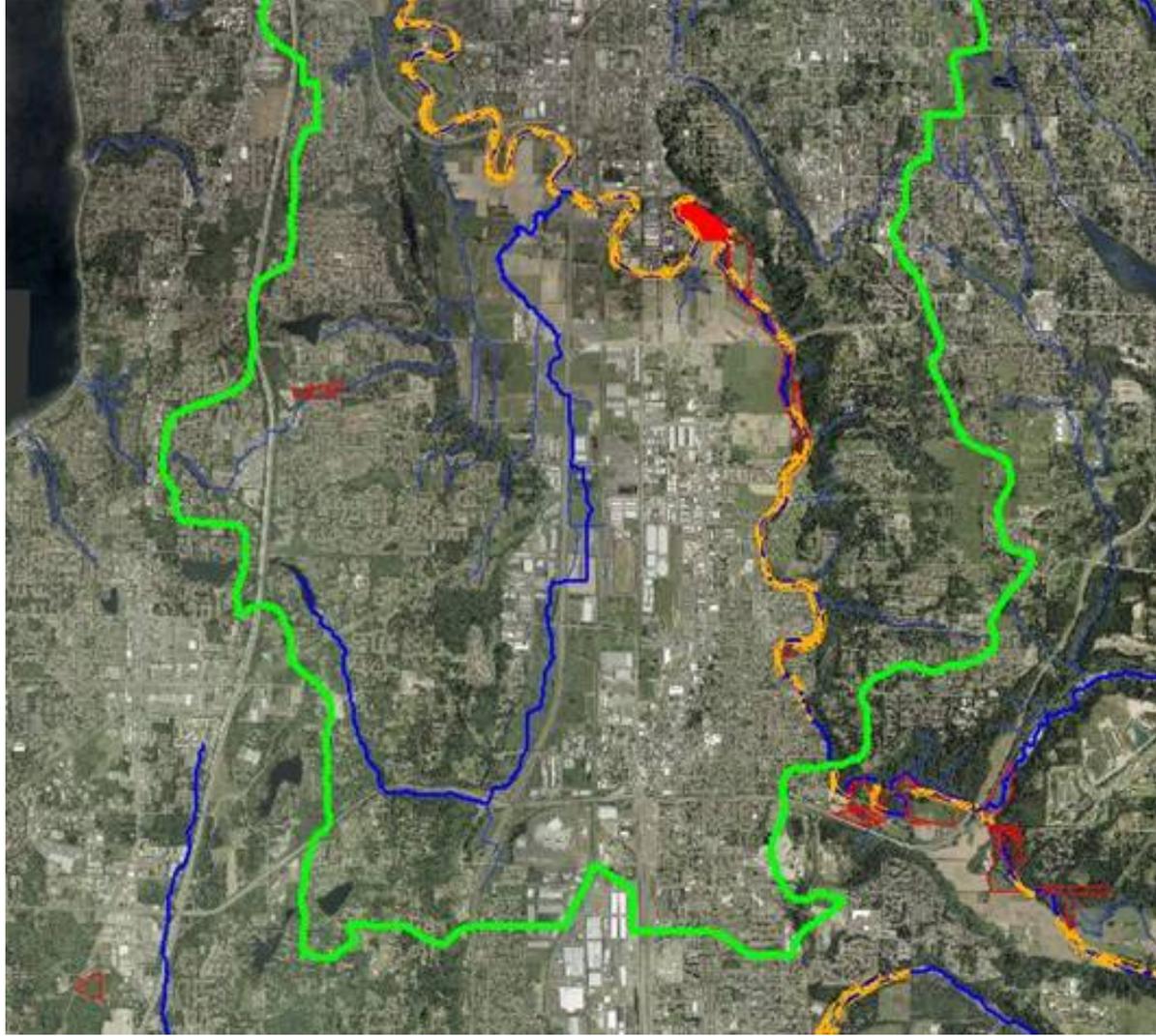
- Use data to help characterize current conditions and potential future trajectory of the site
- Use historic photos and maps to determine changes in landcover over time
- Determine juxtaposition of site with other protected lands and corridors











Final Report

- Produce individual “Biological Inventory/ Ecological Assessment” for a site or integrate analysis into SMG
- Note that report includes site *considerations*, not recommendations
- Stakeholders meet to determine Site Recommendations

Sample TOC

- **Site Introduction**
- **Aquatic Community Types**
 - In-Stream Habitat Features
 - Tributaries
 - Riparian Communities
 - *Cedar River*
 - *Taylor Creek*
 - Wetlands
 - Floodplain Forest
 - Channel Migration and the Historic Floodplain
- **Upland Community Types**
 - Upland Forests
 - Meadows
 - Former Home Sites
 - Roads/Trails
- **Fish and Wildlife**
- **Human Activity**
- **Connectivity and Natural Boundaries**
- **Site Ecological Considerations**
 - Site-Specific Considerations
 - *Invasive Weed Control*
 - *Public Use/Access*
 - *Ecological Enhancement*
 - Consideration of Landscape Attributes and Processes
- **References**
- **Appendix: List of Species Observed On Site**

Questions?

